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ABSTRACT

The thesis of this presentation is that continuing education has come of age. A broad national approach is being developed to bring to maturity the disorganized elements of continuing education programs. The engineering profession, in coping with the problems of rapid technological change, has made efforts to establish updating programs. To illustrate the timeliness of this concept, 28 professional and educational organizations and government agencies are cited, and their individual efforts in setting up their own continuing education certification programs described. The National University Extension Association's National Task Force Statement regarding the Continuing Education Unit (CEU) is included. The statement presents guidelines, standards, and criteria, and suggests action to be taken in utilizing the CEU. (MW)

Continuing Education Comes of Age

Report of a Conference
Milwaukee, November 20-22, 1968

AMERICAN SOCIETY FOR ENGINEERING EDUCATION

Interest in continuing engineering studies as a specialized kind of continuing education has been growing space coincident with the organization of the CES Division in ASEE some three years ago. Support of the entire engineering community is now strong. This ground swell of support may also be found among a host of educational institutions, industrial organizations, professional associations, and governmental agencies. Of particular significance is the National Planning Conference of July 1968, which authorized a National Task Force to define a unit of continuing education that can be applied to all organized learning experiences, albeit noncredit, and thereafter become a permanent, transferable, and accumulative individual record. Broad acceptance of the fundamental work of the National Task Force is yet to be obtained. But this effort, building on much excellent work by numerous predecessor activities, is now given a good chance of success.

AS I PREPARED in December of 1967 to leave my two-year assignment in Washington, I naturally began to give thought to my future program of action. The University of Wisconsin suggested that I begin to work on a program of certification for continuing education. This seemed to be a medium-to-long-range goal rather than one of immediate potential or concern because I knew firsthand of the great difficulties involved. It was clearly held that the effort should be low key, conducted with tact if not with outright diplomacy, and carried out over a long period of time in which two steps forward very well could be expected to be followed by one step back.

Nevertheless, I was surprised immediately thereafter to learn that the National University Extension Association (NUEA), now with more than 140 member institutions, was actively considering the appointment of an ad hoc committee to study essentially this same problem. I was well aware of the significant contributions of the CES Division of ASEE over its brief two-year history, and I was both surprised and pleased by the ECPD position stated last year in the "Report of the Committee on Recognition of Continuing Engineering Studies." But the reception that report received at the CES

I have been using alternately, and often interchangeably, "continuing engineering studies" and "continuing education." Although the former concept is both the title and the province of this ASEE Division, I think it is the latter concept, continuing education, that will prevail. Certainly any national programs or norms that are to be established should be in the generalized context of continuing education and not limited to continuing engineering studies.

One can see, therefore, what potential influence NUEA has in the continuing education effort, since it is representative of all professions, vocations, and avocations to the same degree that its many and diversified institutional members identify with virtually all interest groups. Any effort to define, circumscribe, and trade off a unit of informal education cannot exist in splendid isolation in the engineering profession alone. If so, how does one treat a software course such as "Statistical Inferences for Managers" or a humanistic course such as "Creative Influences in the Advance of Western Civilization?" Moreover, this stylized question tends to ignore many useful learning experiences that are or should be available to the 97% of the population that has little identification with engineering and its immediate allied fields.

The concept of continuing engineering studies also is vertically limited. Does the engineer turned scientist or manager still pursue continuing engineering studies or has his objective changed? It is true that the question may be answered affirmatively for the doctoral level engineer seeking further refinement of his skills. The same holds for the refresher, updating, or broadening of the typical practicing professional at the bachelor's or master's level. But the question becomes moot when applied to the near professional whose competence has been obtained almost entirely by practical experience, through noncredit learning in a variety of formats and circumstances, and under a host of sponsorships, and, finally, by sheer individual and personal effort. In addition, there are the burgeoning fields of the paraprofessionals and the entire array of professionals, including competent technologists, engineering aides, and technicians, for whom the concept of continuing engineering studies seems inappropriate.

We conceive of continuing education as large, intricate, and detailed fabric with a conventional warp and woof at its basic structure. One vertical strand of this great tapestry represents your individual career, along which career you encounter a never-ending succession of opposing strands representing the educational content, the changing state-of-the-art, and other utilitarian aspects of your chosen line of work. Vertical segments of the broad expanse of the fabric represent the numbers of practitioners in the various disciplines. One can imagine electrical engineering, perhaps closely adjacent to physics on one side and mechanical engineering on the other. As that segment of the fabric is studied in more detail, the concept of electrical engineering becomes considerably blurred as we look at either the upper or the lower reaches of the material. Electrical engineering disappears altogether into science and abstract thought as we study the upper expanse of material and into practical applications and individual skills or techniques as we look down the cloth. The thread of your life

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is there intertwined with others, having a beginning at participation in the profession just as it has a corporate beginning." Newton used the analogy of standing on the shoulders of giants to set forth than others. In a more prosaic sense, the thread of our lives is strengthened, and the body of knowledge is both preserved and advanced through our sharing of experiences in all manner of formats, but particularly through our lifelong involvement in continuing education whether as students or teachers.

Continuing Education on Many Fronts

All of us have felt the discomfort for some time of "the monkey on our backs" with respect to engineering obsolescence. A corresponding commentary is not often heard about the obsolescence of physicists or business managers. There is little doubt, however, but that the condition is chronic and widespread. The totality of continuing education is not limited to continuing engineering studies. It could be that the hue and cry we hear concerning engineering obsolescence stems from the efforts of the profession to be immediately aware of the change brought about through the application of science and technology and of the double time we must do to keep ourselves reasonably abreast of this change in the general area of the great tapestry in which our lives are involved.

There are many signs that point to the great interest and determination in coping with the problem of continuing education. The following random examples indicate the breadth and scope of this trend but are not confined to engineering.

1. In the 35th Annual Report of the Engineers' Council for Professional Development, the Committee on the Recognition of Continuing Engineering Studies reported the need for a mechanism to evaluate and record continuing engineering studies and for the establishment of a system for the accumulation and recognition of credit at suitable intervals on the basis of significant individual accomplishments. This effort has been essentially dormant since its rather stormy reception before this audience a year ago, but it represents a pioneering step taken by a major engineering society to launch a program of recognition for continuing education. This idealized effort by the Committee on the Recognition of CES should not become lost. As shall be pointed out later, perhaps the opportunity will arise to combine the recommendations of the committee with a similar national prototype program now being born.

2. Recent labor union contract negotiations with major manufacturers have included efforts to establish employer responsibility of the support for the continuing education needs of skilled workers and technicians to help maintain themselves abreast of advancing technology. This issue has its parallel in the engineering profession where corporate policy on both tuition refund and released time are often at issue for the participation of professional employers in programs of continuing education. Such allowances have become a standard part of government contracts in the aerospace and defense industries.
3. The American Institute of Chemists launched an experiment three years ago for accrediting the continuing technical competence of chemists practicing as consultants in the field.

4. NUEA and the Association of the University Evening Colleges (AUEC) jointly over a period of ten years have gathered data on continuing education activities in institutions of higher education and have attempted to develop criteria for the uniform reporting of more meaningful data on participation by

institutions and individuals. These reports often show that the larger privately supported institutions of higher education serve from one to several times as many students in their informal programs as they reach through their degree-oriented programs.

5. The Report of a Joint Advisory Committee of four national engineering societies (ECPD, EJC, ASEE, NSPE), with which all of you are familiar, encouraged the development of a scale of professional credit, applicable as part of the qualification for various grades of membership in technical and professional societies. This concept was not immediately accepted. One of the more encouraging aspects of that recommendation was its forthwith adoption by Northeastern University. My own attitude in this respect has been modified or broadened somewhat since professional credit equates to continuing engineering studies, whereas a broader base of "postsecondary education" is essential to society and equates to continuing education. This does not preclude the possibility of the former pair of concepts existing as a subset within the larger framework. Indeed, anyone working specifically in the field of continuing engineering education would naturally expect to adopt the former terminologies. The system of nomenclature, definitions, measurement, and recognition that we sooner or later adopt for general use by the engineering profession should be compatible with the companion effort in continuing education per se so that there is one additional system to take its place in the hierarchy of primary, secondary, and higher education now virtually uniform, level by level, throughout the country today. With the growth of graduate education in recent years and the greater emphasis being placed on vocational-technical education and continuing education, the new hierarchy of education becomes: primary, secondary, vocational-technical, undergraduate, graduate, and continuing education, with the last overlapping the three previous fields.

6. The Final Report of the ASEE Committee on the Goals of Engineering Education, issued January 1968, states:

"It is clear that now, and in the future, basic engineering education cannot presume to teach students 'all they need to know.' Accordingly, the profession and academic institutions which serve it must look forward to a growing activity in continuing engineering studies as a distinct educational function, outside of advanced-degree programs."

7. ASEE organized this Continuing Engineering Studies Division in 1965. This division has been active in encouraging the recognition of activities in its field, and now has convened three successive annual meetings of national significance on the subject.

8. The U.S. Office of Education (USOE) has been working with various national educational organizations to develop and publish standard terminology for instruction in state and local school systems with a particular interest and concern where informal learning experiences in the nature of adult, continuing, and professional education take place. Surveys conducted by USOE indicate that approximately 25 million persons, exclusive of the military, participate in a significant continuing education experience each year. This number is nominally four times larger than the college population, although large fractions of so-called continuing education are conducted by church-related and civic organizations. A particular shortcoming of these data is that no directly accumulated record of total student effort or the actual amount of educational transfer that takes place may be inferred from the numbers gathered because of the absence of a uniform unit by which educational content and the extent of student participation is measured.

9. American Association of Collegiate Officers (AACRAO) has been working in recent years with state, provincial associations and with USOE to develop uniform definitions of student personnel in higher education, including continuing professional and general adult education.

10. The National Association of State Universities and Land-Grant Colleges organized a Commission of Education for the Engineering Profession some three years ago to address itself to the breadth and depth of engineering education, including continuing professional education.

11. NUEA is sponsoring a committee to study the design of a uniform crediting and certification program for continuing education.

12. The American Society of Civil Engineers (ASCE) is giving active consideration to a certification program of continuing education for its 40,000 members nationally. Some months ago a representative from the University of Delaware expressed an interest in cooperating with ASCE in producing a national program of continuing education for its members. This solicitation of a federal agency in Washington was made with the knowledge and support of ASEE.

13. The American Society for Personnel Administration (ASPA) is giving active consideration to a certification program of continuing education for its national membership of several thousand persons. Cornell University has participated with ASPA in this sounding effort.

14. Northeastern University has been assigning units of professional credit to a large number of its engineering extension offerings following the recommendation of the Joint Advisory Committee referenced under Item 5. There are many other facets to this program at Northeastern in its Project GAP and other activities.

15. The National Society of Professional Engineers (NSPE) has been offering to its membership a series of independent study courses, largely in the programmed learning format, that serve to introduce the engineer to some of the newer mathematical and management concepts that are becoming the common tools of the profession. This program has been considered a substantial success and inevitably must lead to broader offerings, increased participation, and a call for the recognition thereof by NSPE to its individual participating members.

16. Over a period of several years the University of California at Los Angeles has assigned professional credits to a large number of its extension offerings, particularly those in engineering and allied fields.

17. The National Association of Power Engineers (NAPE) has participated with the University of Wisconsin over a period of years in a certificate program conducted through the correspondence instruction medium and bearing on the licensing of stationary engineers in many states.

18. The Architectural and Engineering Development Division of the Defense Department's Office of Civil Defense has certified several thousand architects and engineers nationally as being qualified to perform fallout shelter analyses based on the completion of extension courses made available through major universities, engineering colleges, and private contractors in a number of formats.

19. Recent advertising by Deutsch & Shea, Inc., in *Fortune*, February 1968, points up the potential technical manpower crisis of the 1970's. Coincident with this advertising campaign, the Engineering Manpower Commission of EJC created a national task force to conduct a symposium on the technical manpower problem in this country.

20. The Commission on Engineering Education has been studying the needs and trends in engineering education for the past several years, having

concentrated to this time on preparation for careers in engineering by assisting in course content development at high school and undergraduate levels. The commission has now set as one of its goals the assisting of continuing education. (Ed. note. The commission's name has been changed to the Commission on Education of the National Academy of Engineering.)

21. The Kansas Industrial Extension Service has designed a complete system of forms for use with continuing education activities. These forms include detailed course descriptions; the definition and methods for computation of continuing education units; the maintenance of records concerning student registration, attendance, and performance; course and instructor evaluation; and the concept of transferrable student transcripts covering course work undertaken in continuing education.

22. The Johns Hopkins University announced on March 11, 1968, the institution of a new program of postbaccalaureate studies for professional engineers. This program contemplates the award of a certificate of continuing engineering studies for the completion of a minimum of 30 credits beyond the bachelor's degree as selected broadly from among current offerings in engineering, mathematics, physics, and chemistry.

23. The University of Wisconsin has established a Professional Engineering Degree Committee, which held its first meeting September 19, 1968. This committee seeks to establish both the criteria and the broad structure of a program of continuing education for graduates of ECPD-approved engineering curricula. It is expected that this structural program will lead to suitable development of the professional engineer beyond his baccalaureate education. It is also contemplated that the university will confer appropriate recognition on him for the orderly accomplishment of such a task.

24. The American Institute of Chemical Engineers has been conducting several two-day courses each year since 1964. These courses enjoy both industrial and institutional sponsorship. The presentations are carefully designed to furnish the engineer who is several years out of school with the material that has been added to the undergraduate curriculum in the recent past. Seminars to date have been technically oriented, but the organization is now offering courses for the first time in the management area. The lecturer furnishes detailed course notes to the enrollees well in advance of the meeting, which are also available in reprint form to the general membership of the society.

25. The American Medical Association (AMA) has developed an extensive system for combating obsolescence through continuing education activities at the level of the county medical societies. Licensing in specialized areas of practice is contingent on participation in prescribed courses of training. A triennial award for excellence in the pursuit of continuing education over a three-year period is currently being discussed by the national society. One state, Oregon, is reported to require specific evidences of participation in continuing education as a prior condition for license renewal.

26. The American Psychological Association is considering similar updating requirements as a basis for continued certification in the profession.

27. The EJC has recently announced a new subscription service known as the Learning Resources Information Center. This service provides information about continuing education opportunities in engineering and related fields on a nationwide basis, cataloged and indexed according to a number of principal parameters.

28. The American Association for the Advancement of Science plans a two-day symposium on continuing education for the engineer at its December 1968 meeting in Dallas.

This list is by no means exhaustive. Rather, it includes those items which I have been particularly concerned about certification of continuing education. The minute details concerning these many efforts are of less significance than the larger issue that is currently under way on so many fronts. The challenge to CES and to all of us who have a professional interest or an administrative responsibility in this area is that the time never seemed more appropriate for a concerted program of action.

NOW, THEREFORE BE IT RESOLVED that an eight-man task force, representative of the organizations and associations present at the conference, be appointed by the sponsors of the conferences to develop a proposal for a joint effort to study the feasibility of a uniform unit for measurement of noncredit continuing education programs which could be used by all groups to meet current needs and to present such a proposal to the national planning group for its review and recommendation at some suitable later time.

Continuing Education at the Crossroads

Indeed, three elements characterize these many signs of burgeoning interest in the recognition of continuing education:

1. A broad base of interest.

2. A sense of timeliness or even urgency about these many efforts.

3. A very good likelihood of further development in many of these ventures.

But there is the complementary probability that weak and incompatible programs, no matter how well supported by their interest groups, are about to spring into being. Thus the time is right to unite the forces and interests in continuing education, including those in continuing engineering studies.

One might safely ask why we are so late in coming to the fore with a common set of objectives and standards to serve all these interests. Specifically, it seems appropriate to ask, "Why is continuing education so late in coming of age?" But participants in the studies that led to the report of the Joint Advisory Committee (ASEE, ECPD, EJC, and NSPE) know how difficult this subject was to broach, much less to gain outright acceptance for its cause, as recently as four years ago.

The National Planning Conference Activity

It was these new tenets that led me to pool my concern vis-à-vis the University of Wisconsin, if not the profession as a whole, with that of NUEA. Item 11 refers to the ad hoc committee NUEA created this past spring for purposes of establishing a uniform system for keeping books on continuing education and for recognizing the participants therein.

Despite the base of approximately 140 institutions that NUEA brings to this effort and its worthy objectives, the decision was made among a small group of us in Washington, in the summer of 1968, to conduct a planning conference on the feasibility of such a system, to which more than 40 governmental, industrial, professional, and institutional representatives were invited (see Appendix 1). Responses to the call of this conference were most gratifying, and after two days largely devoted to discussion of the issues, the national planning group obtained a consensus essentially in the form of the following resolution:

WHEREAS there appears to be a significant national need for a uniform unit of measurement for noncredit continuing education activities; WHEREAS the solution to developing a usable system appears to rest in unified and coordinated efforts on the part of the consumer of the educational product and the producer of the educational product; and WHEREAS there is a desire on the part of the participants in this national planning conference for further study and consideration of the problem;

The National Task Force Activity

The task group appointed for these purposes consists of representatives from NUEA, ASEE, the United Auto Workers, AMA, USOE, the U.S. Civil Service Commission, and SPA. These eight persons met in Washington on October 16, 1968, and worked for a topical outline of the problem as prepared by myself on staff assignment to the chairman of the committee.

The information that follows is paraphrased from the report of the meeting. Bear in mind that the so-called National Task Force came into being on the basis of a resolution presented at the National Planning Conference. The task force has a responsibility to report back to that larger group, although it is largely an organization without structure except for the happenstance of the July planning conference. Therefore, the present task group must look forward to further consent and direction from the national planning group before it can refine and advance the concepts about to be presented.

Possible Broadening of the Task Force Assignment

In addressing itself to its basic charge, the task force foresaw several potential problem areas deserving of study by subcommittees. Membership on the subcommittees could be expected to come from the immediate task force and from the participants in the July National Planning Conference. Indeed, the participation of other knowledgeable persons not in attendance at the July meeting would be desirable in the subcommittees. The following are details about some areas meriting study by subcommittees of the National Task Force.

Potential Subcommittee Assignments

Recognition Aspects. It is altogether probable that technical and professional society involvement is essential, based on the assumption that recognition under this system most often will be conferred by such organizations on individual members for particular achievements measured against two or more independent scales. One can conceive of the continuing education units accumulated in a given period of time as being a significant measure of the technical or job-related capabilities of the individual. But progress of professional development for the corresponding period of time may be considered by some organizations to be a necessary qualifying condition for recognition. Thus both objective and subjective measures may go into determining the qualifications of the individual for recognition. Some system of this kind should be effective in dealing with the "professional student" who takes advantage of every available learning experience but otherwise makes no noticeable contributions to his profession or to society as a whole.

statistics by state, region, and nation, whether in gross terms, by age particular discipline served. Such information would be particularly at the national level for both budgetary purposes and the meeting of needs, but also may be used at state and local levels for requesting funds for individual extension departments or training units. This level of continuing education effort could also become the basis for the level of effort in determining the allocation of federal funds in a program permitting the support of continuing education.

a unit may be used by occupational or professional groups to set standards for training or updating in specific areas.

Effectiveness of continuing education programs of all kinds can be more readily if a uniform measure of output were available to in the input in terms of readily classifiable nomenclature. definition and recognition of such a unit allows a visible accumulation educational experiences for adults who participate in organized educational activities, leading to companion systems of as discussed under the potential subcommittee tasks.

d Developing the Continuing Education Unit

continuing education unit should be a simple, integral unit for learning effort, which people will come to respect and on which they As nearly as possible the unit to be adopted should be applicable s of continuing education except that for which academic credit is d.

continuing education unit should be applicable to any planned and learning experience of postsecondary level education, including undergraduate and postdoctoral education, as in the examples of part information or newly required management skills. The key word ition may well be "organized."

zivably, the continuing education unit could be equal to 10 clock 12 class hours of learning experience. Since these methods of are of equal duration, use of one or the other would depend merely mat and conduct of the learning experience. This module would serve ce the decimal system to the accounting of educational effort, thereby the problems of one-third unit, one-quarter unit, etc., and the r of making conversions between a two-day conference and an evening class, or between a two-week short course and 24 ts in independent study.

continuing education unit should reflect equal effort and provide esults when applied to a variety of program formats and learning It should provide a meaningful measure of personal and professional

name continuing education unit became the tentative recommend- the task force with the deliberate and consistent use of lowercase avoid confusing connotations with civil engineering or Combustion Inc. This may well be shortened in time to c.e. unit, to cev, or,

Course Content Standards and Criteria

1. Substantial guidelines, criteria, and standards will become necessary following closely on the heels of general adoption of the continuing education unit to provide the individual or the institution with a measure against which to evaluate an educational program.
2. Guidelines are not expected to be as much restrictive as a statement of values, including the elements and characteristics that will make possible the evaluation of specific programs.
3. Whenever the necessary guidelines are prepared, they should be prefaced by a definition of terms, such as credit, continuing education, college level, postsecondary, class hours, and equivalency of effort under various formats, such as conference, institute, workshop, seminar, short course, and extension or evening class, particularly as they pertain to the continuing education unit. All such definitions should be as consistent as possible with the present consensus understanding of their meaning and applicability with respect to formal credit education. It may become necessary in some instances, as with the continuing education unit, to coin new terms and define them explicitly for their use in continuing education.
4. The continuing education unit must be defined and sufficient application examples given so as to provide a basis for its use in a wide variety of situations. The operational use of the continuing education unit should be described. Can the unit be divided? How and where are they recorded? How does the individual obtain a cumulative record? How is quality assurance maintained? How are different levels of student effort taken into account?
5. What kinds of educational experiences can be included, e.g., programmed learning, TV courses, independent or correspondence study, guided reading, etc.? What value is to be assigned to laboratory experiences, research effort, field trips, tutorial services, counseling services, etc.?
6. What are the level and scope of continuing education activity to be included under this accounting, e.g., vocational and occupational, professional and scientific, liberal education, recreational activities, cultural experiences, or personal development?

4. There should be incentive for self-policing and self-improvement of effort among sponsors of continuing education programs in the initial stages of quantifying continuing education programs, by virtue of the comparisons that might be drawn among parallel institutional or organizational efforts. The clearinghouse concept described earlier will play an important role in encouraging the sponsors of continuing education programs to make their offerings competitive.
5. Education program sponsors will bear the responsibility for setting the unit value for each of their offerings by using the criteria and standards set forth under this effort. Use of advisory boards or committees also may help to establish the content and value to be assigned to each learning experience based on a well-informed judgment of the specific continuing education need and how well the proposed program satisfies that need.

6. It is not unreasonable to expect that a mechanism for the accreditation of continuing education, strictly for what it is, continuing education, will be proposed by others in time, growing out of the sense of responsibility of the participating organizations to elevate, police, and maintain standards. This concern for quality assurance of continuing education offerings no doubt will be more easily applied to the conventional learning formats.

7. The consumer will interpret the value of the continuing education unit to himself on the basis of the personnel involved, the institution or organization responsible for the programs, and the text material or course outline used to the extent that this level of detail is known about the offering.

8. Each organization will assign its own set of values or standards to the continuing education unit in relation to its particular requirements on frequency, scope, and intensity of the necessary updating experiences.

9. When recognition is to be conferred, the institutional norms may be applied to the individual by relating to both the nature and number of continuing educational background and the time frame in which the continuing education has been accomplished.

Suggested Actions To Be Taken by the National Task Force

1. A proposal should be initiated to obtain financial support for the staff and consultant time necessary to develop the concept and criteria of the continuing education unit and the establishment of the minimum operational procedures necessary to make it functional.
2. Subcommittees or other groups internally related to the National Task Force should be appointed to:
 - a. Define the continuing education unit.
 - b. Develop a statement of course content criteria and operational guidelines for the administration of a program of continuing education under this general plan and arrangement, including definitions of all common terms encountered in continuing education activity.
 - c. Develop standard recording information, analyze where and by whom permanent records are to be maintained, and how individuals can obtain their records. For example, the social security number was suggested as a positive and permanent means of identification for students throughout their career in continuing education.
3. The details of the entire concept of measuring and recognizing participation in continuing education must be thoroughly studied before its

General Definitions and Conclusions of the Task Force

1. The application of the continuing education unit should be user-oriented and not sponsor-oriented. Interest in the verification of learning experiences and their recognition would come from the people concerned with the end product of continuing education, that is, from employers, licensing boards, and professional societies more so than from educational institutions.
2. The very fact that a unit of measurement is to be defined should generate sufficient incentive for its prompt and universal adoption by the sponsors of continuing education and its ready acceptance by the users.
3. The participation of major institutions of higher education, as in the example of more than 140 NUEA institutions, and the development of detailed criteria and standards to which all sponsors of continuing education can subscribe, will serve the immediate purposes for quality assurance. If a program brochure carries the statement, "This program has been approved for so many continuing education units," there is a sense of obligation on the part of the sponsor to provide a quality program.

releas[ed] the stated policy of any organization to develop an educational system for measuring and recognizing continuing education activities to initiate programs under the general terms of the proposal described herein before they have been fully developed, subjected to field tests, or submitted to the constituency of the National Planning Conference for amendment and approval. Any unfavorable results obtained from such precipitate use of these concepts may result in damaging publicity for the controlled development of the uniform system for measuring and recognizing continuing education for which all of this ad hoc effort has been expended.

4. It is expected that there will be a substantive article, incorporating and paraphrasing all of these findings, prepared for publication in a forthcoming issue of NUEA Spectator. Reprints of this expository article should be made available to all participants in the National Planning Conference and to other interested parties with explicit permission for its release through other pertinent trade and professional journals and association and society newsletters.

5. Another meeting of the representatives at the recent National Planning Conference is tentatively scheduled for Washington, D. C., in early spring 1969. The base of participation in this Second National Planning Conference may be broadened as interests dictate. This meeting should be held prior to the launching of pilot projects at institutional and society levels to achieve these broad purposes.

6. Otherwise, pilot programs should be started as soon as participants in the original planning conference have been advised of these developments, their counsel obtained, and at least rough draft guidelines and criteria have become available. The pilot programs should represent the operational phase of a national experiment intended to prove or disprove the concepts and the rationale of this experiment in continuing education.

7. Each task force member is to bring to the next meeting a list of the common types of continuing education activities within his sphere of knowledge and experience. Estimated numbers of units considered significant for certain purposes should also be included.

8. At the same time, members of the task force representing major employers of persons likely to become interested in the pursuit of continuing education under the general terms outlined herein were asked to estimate a reasonable number of C.E. units a well-motivated individual might be expected to accumulate on a sustained basis by taking advantage of the learning formats normally available to him.

Summary

The thesis in this presentation is that continuing education is coming of age. Numerous examples have been given of the individual determined efforts many organizations are taking to bring order and dignity into this important and growing field so as to alert you to the dangers of there being 30-odd or more systems of accounting for and recognizing continuing education. Two recent efforts have been mentioned, both largely unheard of, that propose to evolve a uniform system for such purposes. In several more months, the National Planning Conference of 40 representative organizations and the task force it authorized will have an opportunity to test fully on one another and their respective constituencies the ideas that have been presented here.

The broad national approach we have been using to develop and promulgate the standards of "a uniform system for measuring and recognizing effort in continuing education" will meet with success. Perhaps the biological metaphor is wrong when we refer to a program yet to be born as simultaneously "coming of age." The underlying idea was that all the elements of a highly successful program of continuing education for all interested adults are now extant in our country, although highly disorganized. What we propose by these efforts is to bring maturity to all these programs, truly a coming of age, rather than going through the pains and long period of nonproductive adolescence associated with the "birth" of a new entity.

Those already committed to substantial programs of continuing education will feel no threat in a national system that confers majority on their programs. If what is being done can be measured, it fits the system evolving out of this national effort. For others entering the field or seeking broader avenues of service through continuing education, there should be a clear-cut challenge and opportunity to participate under the nationally acceptable standards we now seek to promulgate.

I can think of no more exciting prospect for the next several months. I am not concerned that the first year of majority for continuing education might fail to be productive. To the contrary, we do appear to be safely committed to a course of constructive action under the framework of the National Task Force and its sponsoring National Planning Conference in settling on the fundamental requirements that truly and surely will permit continuing education to come of age.

APPENDIX 1

National Planning Conference on the Feasibility of a Uniform Credentialing and Certification System for Continuing Education, July 1-2, 1968

List of Organizations Represented

Adult Education Association of the U.S.A.	McGraw-Hill Book Company, Inc.
American Association of Collegiate Registrars and Admissions Officers, sponsor	National Academy of Engineering
American Association of Junior Colleges	National Home Study Council
American Association of State Colleges and Universities	National Society of Professional Engineers
American Council on Education	National University Extension Association
American Society for Personnel Administration	Science Research Associates
AFL-CIO	United Auto Workers
American Hospital Association	U.S. Armed Forces Institute
American Medical Association	U.S. Civil Service Commission
American Society for Engineering Education	U.S. Department of Commerce
American Society for Public Administration	U.S. Department of Defense
Association of University Evening Colleges	U.S. Department of Health, Education and Welfare
Cambridge Institute for Management Education	U.S. Department of Health, Education and Welfare
Commission on Engineering Education	U.S. Department of the Air Force
Du Pont de Nemours and Company, Inc.	U.S. Office of Education, sponsor
Engineers' Council for Professional Development	U.S. Office of Emergency Planning
Engineers Joint Council	U.S. Office of Scientific Affairs
General Learning Corporation	U.S. Office of Transportation